

## To the transport barricades!

Why are we just waiting for the oil crunch? ask transport experts

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General Motors is to cut automobile production by 14 per cent (by 35 per cent in Ontario) and employees by 9 per cent (20 per cent in Ontario). Ford could soon make similar cuts. Both companies are seriously hurting. Threats of even higher fuel prices and low-cost imports from China are on the horizon. Ontario's and Canada's main manufacturing sector is in deep crisis. It's time to re-think where our transport systems are headed.

A key factor has been the rise in fuel prices, and a resulting change in consumer preferences away from the large vehicles (SUVs, pickups and vans) that Ford and GM have focused on. Sales of these vehicles are down both in the U.S. (where more than 80 per cent of Canadian-made automobiles are sold) and in Canada.

Ford, which depends even more on large vehicle sales than GM, appears to be paying some attention to market demand for smaller and more fuel-efficient vehicles. For example, the company is planning a tenfold increase by 2010 in world production

of hybrid gasoline-electric automobiles. For the same power output, these vehicles can use about 30 per cent less fuel than gasoline-only versions. The tenfold increase would raise the share of Ford's hybrid sales from 0.4 per cent to 4.0 per cent; by contrast, Toyota aims to sell a million hybrids worldwide by 2010, about 10 per cent of its anticipated production.

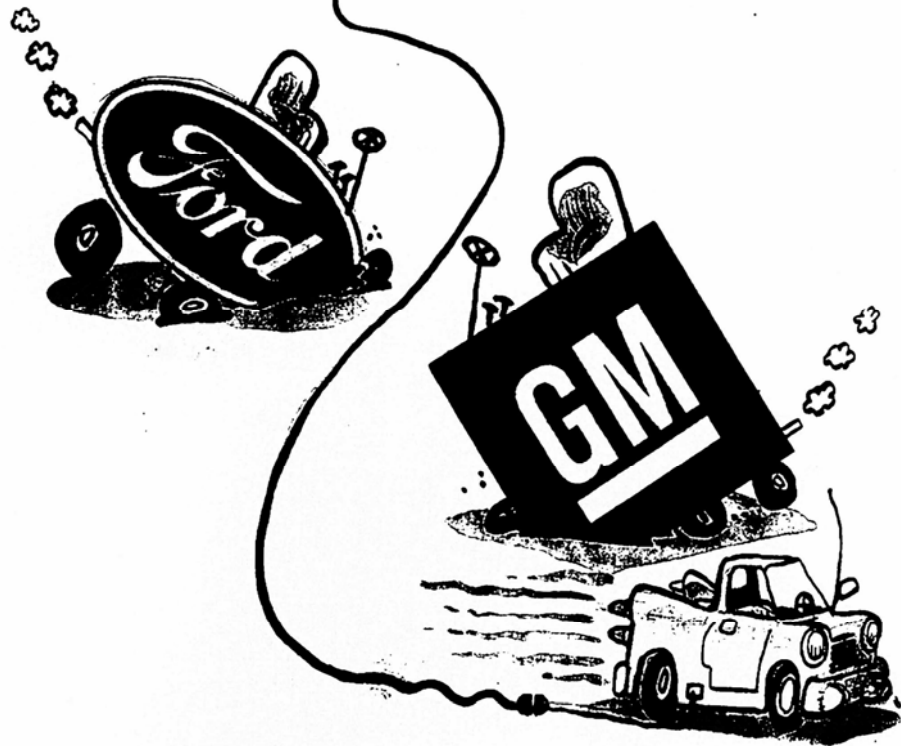
GM has chosen a different path. The cuts announced on Nov. 21 spared plants where large vehicles are produced. The company appears to believe that gasoline prices will fall, and customers will

return to buying SUVs and other large vehicles.

We believe the world is just beginning the transition to a new energy regime that could see Canadian pump prices of gasoline rising to more than \$4 a litre (\$10 a gallon in the U.S.) during the next decade. Only massive expansion of oil production in the Middle East could defer such an increase, and we don't believe such expansion will happen. Some relief will come from applying new technology to depleted wells, but this kind of production gain will not meet future needs. Potential demand for oil, meanwhile, is rising sharply, particularly in

China and likely soon in India. China's imports of oil and oil products rose by an astonishing 43 per cent last year. (They are down slightly this year.)

Small shortfalls in production, in relation to potential demand, lead to large increases in crude oil prices, which generate large increases in pump prices. The U.S. National Commission on Energy Policy has estimated that a worldwide 4-per-cent shortfall in daily oil supplies would result in a 177-per-cent increase in crude oil prices. Larger shortfalls would result in proportionately even greater price increases. It's not hard



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to see how we could soon be at a new equilibrium in which lower world oil consumption is dictated by pump prices of \$4 a litre.

That \$4-a-litre gasoline would be a benign outcome of oil-production shortfalls. Alternatives include such large convulsions in the oil market that supply chains break down, or such devastation of the world economy that demand for oil collapses, or both.

We are optimistic that there could be an orderly adjustment to such a high-price regime that sustains efficient and convenient movement of people and goods at much lower levels of consumption of gasoline and diesel fuel. Most surface transport would have electric drives, drawing current from rails or wires, or from batteries, or from both.

Today's hybrid vehicles are the beginning of the transition away from the internal

combustion engine. The next step is giving hybrids bigger batteries that can be charged overnight from regular sockets and can power vehicles for most of the next day's trips. These vehicles are known as "plug-in hybrids."

Grid-connected electric vehicles—such as streetcars, trolley buses and subway trains—are by far the most fuel-efficient means of moving people and goods, especially when renewable energy is used (electricity from wind, sun and falling water). We will need new varieties of grid-connected vehicles when current transport fuels become unaffordable for frequent use. These could include trolley trucks for moving freight and people movers for serving lower-density suburbs.

GM and Ford have shown themselves to be mostly incapable of embracing a transport future that breaks away from "business as

usual." If these companies were not so large, and not so important to Ontario's and Canada's economies, a reasonable strategy for government would be to let them fade away and be replaced by firms that follow a business model suited to contemporary circumstances.

The current temptation is to rescue these companies with further huge handouts. This approach would be a waste on two accounts. First, it would inevitably fail. Second, it would use resources that could be better applied to anticipating and developing the kinds of transport infrastructure that will make sense when the real oil crunch comes.

The best strategy for government could involve providing resources tied to pulling GM and Ford toward a future of the kind we have outlined. Investing in electric vehicle production could yet save these companies. Such a

transition would prove less painful and more effective than a bailout, while making the best use of the industry's existing human resources.

Canada could become a world leader in the move to a new transport paradigm, with the benefits that flow from being at the forefront of such innovation. Above all, we would stand a chance of being able to move around and maintain supplies of food and other essentials when that oil crunch comes.

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